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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/21/2006

Thomas Friedlaender

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EXAMINER

TISCHLER, FRANCES

ART UNIT

PAPER NUMBER

1765

NOTIFICATION DATE

DELIVERY MODE

09/09/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mgbdoCKET@marshallip.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,368	<b>Applicant(s)</b> FRIEDLAENDER ET AL.	
	<b>Examiner</b> FRANCES TISCHLER	<b>Art Unit</b> 1765	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 5) ☒ Claim(s) 1-3,6-17 and 21 is/are pending in the application.
- 5a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-3,6-17 and 21 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Status of the Claims***

Receipt is acknowledged of the Applicant's response filed on 7/14/11. Claims 1, 10 – 14 and 16 have been amended. Claims 4 and 5 have been cancelled. Claims 18 - 20 are withdrawn. Claims 1 – 3, 6 – 17 and 21 are now pending.

Applicant's amendments claiming shredding of the used plastic containers and that the decontamination is automatically adapted to the actual contamination of the plastic necessitated new grounds for rejection.

Any previous objection or rejection not discussed below is deemed withdrawn.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1 - 3, 6 – 15, 17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by TACITO et al (US 6,533,124).**

Regarding claims 1,2, 10, 12, 14 and 17: TACITO discloses a method for reprocessing used and ground plastic containers comprising the steps of analyzing the type and amount of contaminants and decontaminating it according to the degree of contamination [as claimed], which is done by varying and regulating the temperature accordingly and the heating rate and residence time of the material in the heating

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device [reading on the claimed process temperature and process time] (3:65 – 67, 4:1 – 62, 5:39 – 67, 6:1 – 38, 7:10 – 19, claims, figures). The process contains programmable logic controllers for the entire process that access the degree of contamination at various points, compares it with stored data, decides on the temperature and rate of decontamination, decides whether to divert the plastics based on the degree of contamination or threshold value, and whether to discard contaminated plastic exceeding said threshold value.

Regarding claim 3: The plastics are selected according to contaminant levels (4:12 – 26, 6:54 – 67, 7:1 – 6, figure 2). Figure 2 shows 4 contaminant groups.

Regarding claims 6 and 7: TACITO adds up the concentrations of the contaminants throughout the process, compares them to stored values to decide on the decontamination parameters (figures 2 and 3a-d, 6:54 – 67, 7:1 – 6).

Regarding claims 8 and 15: see TACITO claim 2.

Regarding claims 9 and 21: A known contaminant data record is stored in the computer and compared to the contaminants found in the recycling plastics (figures 2 and 3a-d, claim 2) [reading on at least two contaminants or contaminant groups].

Regarding claims 11 and 13: When the degree of contamination exceeds a threshold value, the plastic sorted out and removed (fig 2, 3:65 – 67, 4:1 – 26, 6:39 – 53).

***Claim Rejections - 35 USC § 103***

**Claims 1 – 3, 6 - 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over KRIEG et al (US 6,509,537) in view of TACITO et al (US 6,533,124).**

TACITO's disclosure is disclosed above and is incorporated herein by reference.

KRIEG discloses (abstract, figures, 1:6 – 20 and 40 -62, 2:33 – 54, 4:7 – 53, claim 1, figure 9) a method for detecting and evaluating contaminants in granulated waste plastic bottles such as PET, with laser beams, analyzing, classifying and sorting said contaminants into different groups, as claimed in the present application. Detection of contamination is done through programmed logic, calculated calibration vectors and comparison with reference data stored in data memory, reading on Applicant's data analysis and comparison with predetermined data. The concentration of the contaminants is detected through spectral analysis, reading on Applicant's concentration as a process parameter. The process is done in real time, reading on Applicant's time as a process parameter.

KRIEG analyzes and determines the degree of contamination in waste plastic bottles but **fails** to teach a decontamination treatment.

**However**, it would have been obvious to one of ordinary skill in the art to have decontaminated KRIEG's contaminated waste bottles in the manner disclosed by TACITO since both inventions disclose similar methods of detecting and separating contaminants from waste plastic PET bottles for the same stated purpose of being able to reuse the waste plastic material, and one of ordinary skill in the art would have known

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that if one goes through a process of identifying contaminants in plastic so that it can be re-used, decontamination should necessarily be performed so that it can be reused. For the above reasons, it would also have been obvious to one of ordinary skill in the art to have specifically used TACITO's process temperature as a decontamination process parameter in KRIEG's process as part of a decontamination process in order to decontaminate the contaminants that have been evaluated for the degree of contamination so that the waste plastic can be re-used.

***Claim Rejections - 35 USC § 103***

**Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over TACITO et al (US 6,533,124) in view of KRIEG et al (US 6,509,537).**

TACITO's and KRIEG's disclosures are disclosed above and are incorporated herein by reference.

TACITO **fails** to disclose two partial quantities as a function of degree of contamination and decontaminating them separately.

However, it would have been obvious to one of ordinary skill in the art to have separated TACITO's plastics into at least two partial quantities as a function of the degree of contamination as disclosed by KRIEG since it is easier to decontaminate plastics if they separated according to their contamination type or concentration and since KRIEG teaches that the proof and identification of contaminants is absolutely required especially in recycling plastics to be used in connection with food (1: 40 – 44), wherein both TACITO and KRIEG are concerned with the same objective of detecting

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and separating contaminants from waste plastics for the same stated purpose of being able to reuse the waste plastic material.

### ***Response to Arguments***

Applicant's arguments filed 7/14/11 have been fully considered but they are not persuasive.

Applicant submits that KRIEG does not disclose separation of contaminated plastic from cleaner plastic such that the contaminated plastic is not further used; that KRIEG is silent regarding temperature as a process parameter.

Applicant's argument is not convincing: KRIEG specifically discloses to separate plastics according to their contamination levels. Although KRIEG does not teach how to decontaminate the plastics once separated, TACITO teaches to decontaminate them by increasing the temperature according to the contamination type and concentration. KRIEG is used herein to show that it is known in the art to separate contaminants into groups according to the contaminants present.

Applicant submits that TACITO discloses decontamination of a plastic but fails to disclose determining decontamination process parameters as a function of the degree of contamination found in the analyzing step and conducting controlled decontamination of the plastic according to the decontamination process parameters thus determined.

Applicant's argument is not convincing: TACITO discloses to analyze the type, concentration, degree of contamination, compare them with known values, and perform

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decontamination by applying the appropriate temperature depending on the analyzed step.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANCES TISCHLER whose telephone number is (571)270-5458. The examiner can normally be reached on Monday-Friday 8:00AM - 5:30 PM; off every other Friday.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES J. SEIDLECK/  
Supervisory Patent Examiner, Art Unit 1765

Frances Tischler  
Examiner  
Art Unit 1765

/FT/